An Improved Method for Generating Biometric-Cryptographic System from Face Feature

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Abstract:

One of the most difficult tasks in networking is to provide security to data during transmission, the main issue using network is lack of security. Various techniques and methods had been introduced to satisfy the needs to enhance the firmness of the data while transmitting over internet. Due to several reasons and intruders the mechanism of providing security becomes a tedious task. At first conventional passwords are used to provide security to data while storing and transmitting but remembering the password quite confusing and difficult for the user to access the data. After that cryptography methodology is introduced to protect the data from the intruders by converting readable form of data into unreadable data by encryption process. Then the data is processed and received the receiver can access the original data by the reverse process of encryption called decryption. The processes of encoding have broken by intruders using various combinations of keys. In this proposed work strong encryption key can be generated by combining biometric and cryptography methods for enhancing firmness of data. Here biometric face image is pre-processed at initial stage then facial features are extracted to generate biometric-cryptographic key. After generating bio-crypto key data can be encrypted along with newly produced key with 0's or 1's bit combination and stored in the database. By generating bio-crypto key and using them for transmitting or storing the data the privacy and firmness of the data can be enhanced and by using own biometrics as key the process of hacking and interfere of intruders to access the data can be minimized.